

ABSTRACT

A piston assembly for use in a motor comprises a cylinder having a bore, an electrically conductive piston reciprocally disposed within the cylinder bore, a gas cavity formed within the piston, and one or more gas bearings associated with the piston, each of the one or more gas bearings including an aperture formed within the piston and an electrically conductive tubular member extending through the aperture, the tubular member having a lumen in communication between the gas cavity and the cylinder bore. The piston assembly may be used in connection with a motor used in a cryocooler that is driven by oscillating magnetic energy fields.

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